

What is claimed is:

1. An optical functional unit (1) including an optical functional element (11) operating with a lens system (3, 9) and a housing (5) enclosing the optical functional element, wherein an object-side part (3) of the lens system (3, 9) acting as an optical lens, or the entire lens system (3) of the unit (1), is designed as an integral component of the housing (5) of the unit (1).
2. The unit (1) as recited in Claim 1, the unit being a sensor device (1) and the functional element including a radiation-sensitive sensor surface (11), which is designed to detect electromagnetic radiation from a frequency section of the spectral range including the near infrared (NIR) range and/or the visible (VIS) range, the frequency section having a predefined width and position.
3. The unit (1) as recited in Claim 1, wherein the unit is designed as a subunit for use in the passenger compartment of motor vehicles (25).
4. The unit (1) as recited in Claims 1 through 3, wherein the part (3) of the lens system (3, 9) acting as an optical lens and integrated into the housing (5), or the entire lens system (3) integrated into the housing, is designed to be transparent to a frequency section, whose position and width are predetermined, and which is of electromagnetic radiation from the near infrared range (NIR range), and is designed to be opaque to the visible range (VIS range).
5. The unit (1) as recited in one of Claims 1 through 4, wherein the housing part (3) containing at least part of the lens system (3, 9) is manufactured using injection molding technology.
6. The unit (1) as recited in one of Claims 1 through 5, wherein the housing part (3) containing at least part of the lens system (3, 9) is designed to be part of the interior lining of a motor vehicle.

7. The unit as recited in one of Claims 1 through 6, the functional element including an artificial light source, in particular a light emitting diode (LED), and especially a diode emitting infrared light (IRED).

8. A housing (5) for an optical unit (1) as recited in one of Claims 1 through 6.

9. A range video system including an optical sensor device (1) as recited in one of Claims 2 through 6.

10. A camera system including an optical sensor device (1) as recited in one of Claims 2 through 6.

11. The camera system as recited in Claim 10,
wherein it is designed as a stereo camera system.

12. A system as recited in one of Claims 9 through 11,
wherein it is designed for use in a motor vehicle (25).